

Pacific Region Focuses on Renewable Energy



Area Development Site and Facility Planning

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Alaska | California | Hawaii | Oregon | Washington

LIKE MANY OTHER STATES, those located in America's Pacific region are focusing on energy issues to help them stay competitive, productive, and economically stable.

Expanding Domestic Resources

Alaska is renowned for its vast natural resources, including oil, gas, coal, solar, wind, geothermal, and hydro power. Recently Governor Sean Parnell announced a new goal for Alaska: one million barrels of oil production per day through the Trans Alaska Pipeline System within the next 10 years. In May, he contacted the nation's other 49 governors and urged them to join his state in taking steps to increase domestic energy production rather than continuing to increase U.S. reliance on foreign oil.

In May, Parnell's bill designed to increase oil production and reform oil taxes passed Alaska's House of Representatives. It's expected that lower oil taxes will make the state more competitive, attract billions of dollars in new investment, create thousands of new jobs, and ensure the continued economic viability of the pipeline.

The federal government has invested at minimum \$92.4 million here through the American Recovery & Reinvestment Act (ARRA). The University of Alaska Fairbanks was awarded \$4.3 million to test a combination of exploration techniques to assess the underground geothermal resources at Pilgrim Hot Springs, Alaska. And the Trabits Group in Wasilla was awarded \$2.2 million for R&D to develop an improved cement for high-temperature geothermal wells.

Exploring Multiple Technologies

Imported fossil fuel supplies 90 percent of the energy of Hawaii, the nation's most

energy-dependent state. Its state-government-sponsored Clean Energy Initiative is a roadmap to achieving 70 percent clean energy by 2030 - with 30 percent coming from efficiency measures and 40 percent from locally generated renewable sources. A number of technologies in use or under consideration create energy from the sun, wind, ocean, and the land, i.e., geothermal and biomass. Algae are even being looked at as a potential energy source.

Some local energy blogs are voicing concern that wind projects are presently getting the lion's share of money and /or attention. However, Hermina Morita, chair of the Hawaii Public Utilities Commission, has noted there's no "one" solution, and it will take "multiple technologies, diversity, and the integration of these various technologies" to find energy answers. For example, on Hawaii's Big Island nearly 30 percent of the Hawaiian Electric Light Company's current 269-megawatt capacity comes from renewable sources: wind (31 MW), geothermal (30 MW), and hydroelectricity (16 MW).

Nation's Largest Hydroelectric Industry

Washington and Oregon are also both blessed with substantial natural resources, producing energy from biomass, wind, geothermal, and hydro sources. Washington's hydroelectric power industry is the nation's largest, generating more power annually than any other state's entire renewable energies program, according to Department of Energy (DOE) sources. That's good news, as the state presently spends \$25 million per day on petroleum fuels (all of which are imported from out of state) and wants to minimize that expense.

The ARRA investments in Washington total at least \$2.6 billion. They support a broad range of DOE clean-energy projects - ranging from energy efficiency and the smart grid; to wind, biomass, and geothermal; to cleanup at the Hanford nuclear site's contaminated facilities.

In Oregon, ARRA funding for selected DOE projects totals at least \$267.5 million. According to the DOE, Hay Canyon Wind Farm has received payments of \$47.1 million; SolarWorld Industries America Inc. in Hillsboro was awarded a clean energy manufacturing tax credit of \$82.2 million to expand its existing 100 MW solar photovoltaic manufacturing plant to 500 MW; and U.S. Geothermal was offered a \$102.2 million conditional commitment for a loan guarantee to construct a 22 MW power project in Malheur County.

World's Largest Solar Plant

Like its neighbors, California has significant natural resources - namely, oil, gas,

solar, wind, geothermal, and hydro power. The ARRA financing of selected DOE projects in the Golden State totals some \$2.3 billion. The federal government reports that notable competitive DOE grants or tax credits include payments for renewable energy generation totaling \$79.1 million (e.g., eSolar, Inc. received \$19.5 million for a solar project).

Additionally, Hydrogen Energy California was awarded \$308 million to design, construct, and operate a hydrogen-powered, electric-generating facility with carbon capture and storage; and BrightSource Energy was offered a conditional commitment of more than \$1.37 billion in loan guarantees to support the construction/ start-up of the Ivanpah Solar Complex, which comprises three solar power plants in California's Mojave Desert to be built in phases between 2010 and 2013. The 392 MW gross solar complex will use mirrors to focus the sun's power on solar receivers atop power towers. The project is the largest solar plant under construction in the world.

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